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# **AN INTEGRATED RESOURCE APPROACH TO SUGAR CREEK CAMPGROUND SITE DESIGN**

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**Clemson Class of 1991**  
**April 1992**

This paper was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. It in no way reflects USDA Forest Service policy, nor are the opinions expressed those of anyone other than the author.

## ABSTRACT

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TITLE: An Integrated Resource Approach to Sugar Creek Campground Site Design

ABSTRACT: Many of the camping sites on the Ochoco National Forest fall between dispersed and fully developed in the recreation experience level. The use on these sites has been low but consistent and increasing with an outlook of even more demand. The question is how to manage these sites and maintain their "special" quality while still meeting the increasing public demand for recreation.

Sugar Creek Campground is an existing six unit site that is being considered for expansion and upgrading of facilities. The purpose of this paper is to develop a process to evaluate Sugar Creek Campground from a recreation and landscape ecology perspective to determine the role of the site in the landscape. The process is based on integrated resource planning from a "New Perspectives" management approach.

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## INTRODUCTION

As an agency we are being challenged by the public to think differently in the management of their public lands. New perspectives, biodiversity, and landscape ecology are some of the new concepts now being addressed in our planning processes. George Leonard, Associate Chief of the Forest Service (1989), speaking before a Congressional Subcommittee said:

**"New Perspectives in management for ecosystem diversity, public participation, and integrated science will revolutionize how this country carries out natural resource education, science and management."**

Our integrated science approach will not only determine our management direction, but will also provide a tool to educate the public on natural resource processes. To strengthen this approach, we are adding specialists such as wildlife biologists, fisheries biologists, archeologists, ecologists, and botanists to ensure a good mix of technical knowledge to accomplish our land stewardship goals. These specialists were initially hired for the management of timber sale programs, however, their skills are needed in all forest planning processes.

Recreation planning can use an integrated new perspectives approach. Past management has been on a perceived need to develop or expand because of "wear and tear" on the land. This resource degradation may only be one indicator of the need to evaluate the current use and not the only problem to design a solution for the preservation of our natural resources.

Our recreation management needs to remove itself from the reaction mode. We feel we can solve perceived problems by adding barriers, spurs, tables, toilets, and other facilities. By doing this, we may destroy the special attractiveness of the site. We need to move from this facilities approach and look at the human experience and ecological processes that make up the area. When these are identified, we will be better able to manage a specific piece of the landscape.

The majority of the camping on the Ochoco National Forest occurs near small streams, usually on a grassy opening on flat ground. The use has been historic, mainly associated with the various big game hunting seasons that occur in the fall. When use has created resource damage, we have regulated circulation and camping areas. The more frequently used sites have had potable water, garbage cans, and toilets added and we now charge a nominal fee for these services and call these sites developed sites. The design of these unique, special places has evolved rather than having been planned. Sugar Creek Campground is one of these sites.

Sugar Creek Campground is currently in the project identification stage of the Capital Investment Program. The initial scoping process for the Environmental Assessment discussed the need for adding more units and upgrading the facilities on the site. The current use is occasional camping during the spring and summer months and heavy use during the various fall hunting seasons. The site is located in the edge of a pine forest adjacent to the local ranching community.

## Purpose

My paper develops an integrated resource process to evaluate small recreational sites from a recreation and landscape ecology perspective to determine the role of the site in the landscape. The focus is on Sugar Creek Campground which is at the evaluation stage in the Capital Investment Program.

## Objectives

Objectives that apply to the Sugar Creek Campground and could be applied to similar recreational sites on the Ochoco National Forests and other similar national forests.

1. To identify significant biological and ecological features on the site and surrounding landscape.
2. To identify recreation potential on the site and in the surrounding area.
3. To integrate the ecological, biological, historic and social aspects into a recreation design.
4. To determine the significant features of the site that make it a "special place".
5. To determine the interpretive potential of the area.



## LITERATURE REVIEW

*Forest Landscape Design*, Simon Bell, discusses the importance of scale, diversity, and "the spirit of the place" as design principles in the appreciation of the forest landscape. Scale being the perception of relative and absolute size of a landscape and how it can change when the visitor views the landscape features from a varied direction, distance and elevation. Diversity is the number and degree of different features in a landscape or design and can be linked to ecological diversity. The book talks about an intangible principle that cannot be defined by other principles. The principle is a combination of features that are unique and is called "the spirit of the place". It is an aspect of forest landscape design that is elusive and is difficult to create but needs to be conserved.

*Forest Landscape Design* also discusses how the appraisal or assessment of a landscape is a necessary step prior to the beginning of design work. The author developed this process to analyze large landscapes, but it can be used for site analysis of small sites such as Sugar Creek Campground and its surrounding landscape. The following factors provide the framework for the inventory step of the analysis process:

1. Sensitivity - The sensitivity of a landscape depends on its resilience to change. How much alteration can a site absorb before it changes its character.
2. Character - Character is the distinct pattern of elements which occur consistently in a particular type of landscape.
3. Heritage - Some landscapes are valued for their historic and traditional associations, as well as, for their aesthetic qualities.
4. Elements of Diversity - These elements include landform, water, rocks and outcroppings, wildlife, and vegetation.

These factors provided the framework for the inventory step of the analysis process.

Sugar Creek Campground is located near the small town of Paulina which serves the traditional ranching community of the area. George Siehl, in his CRS Report for Congress titled *Amenity Resources and Rural Economic Growth*, discusses amenity resources of such small communities. The nearby ranching community is an aspect of rural development in which residents and visitors may find pleasure, beauty, and experiences that are unique to this locale. These may include social and historic attributes and cultural events. We, as an agency, need to interact with these rural areas because of our location, and to include their amenities in our landscape and recreational analysis.

These rural landscapes are also part of the public's perception of an outdoor experience. In *The Social Psychology of Leisure and Recreation*, Seppo E. Iso-Ahola, says people perceive natural appearing landscape as something non-urban. The physical characteristics of landforms, agricultural features, and natural vegetation affect positively the evaluation of natural landscape. Therefore, the perceived quality of the outdoor recreational environment is determined by physical characteristics of the environment, as well as, psychological rewards expected from outdoor environmental encounters. The physical appearance of our management activities, such as timber sales, rockpits, grazing, etc. can affect the experience of our public as they travel to recreational sites. This experience, which could be positive or negative, is one method we have in educating the public on environmental awareness.

## LITERATURE REVIEW - INTERPRETATION

The education of the public is part of the national direction of New Perspectives. It also is the primary objective of interpretation as defined in the interpretive planning handout by Jerry Coutant, WO Interpretive Services Recreation Management Staff. It is the need to assist the visitor in developing a keener awareness, appreciation, and understanding of the area that is the focus of our objective. A second objective is to accomplish management goals as stated by the Forest Plan. The last objective of interpretation is to promote public understanding of the agencies goals and objectives. We have been directed to educate the public. Interpretation is a tool to accomplish this direction. The challenge is to determine the message that fits the audience and the site. The interpretative planning needs to begin with the feasibility phase of the design process.

John Syme's, Conceptual Framework for Forest Recreation Marketing , says all marketing is done within the framework of a strategic plan. The plan not only provides internal marketing direction, but also, communicates the organizations purpose and objectives of interpretation. A more detailed marketing plan can be developed when the ecological and recreational inventory is completed and we know what is available to market.

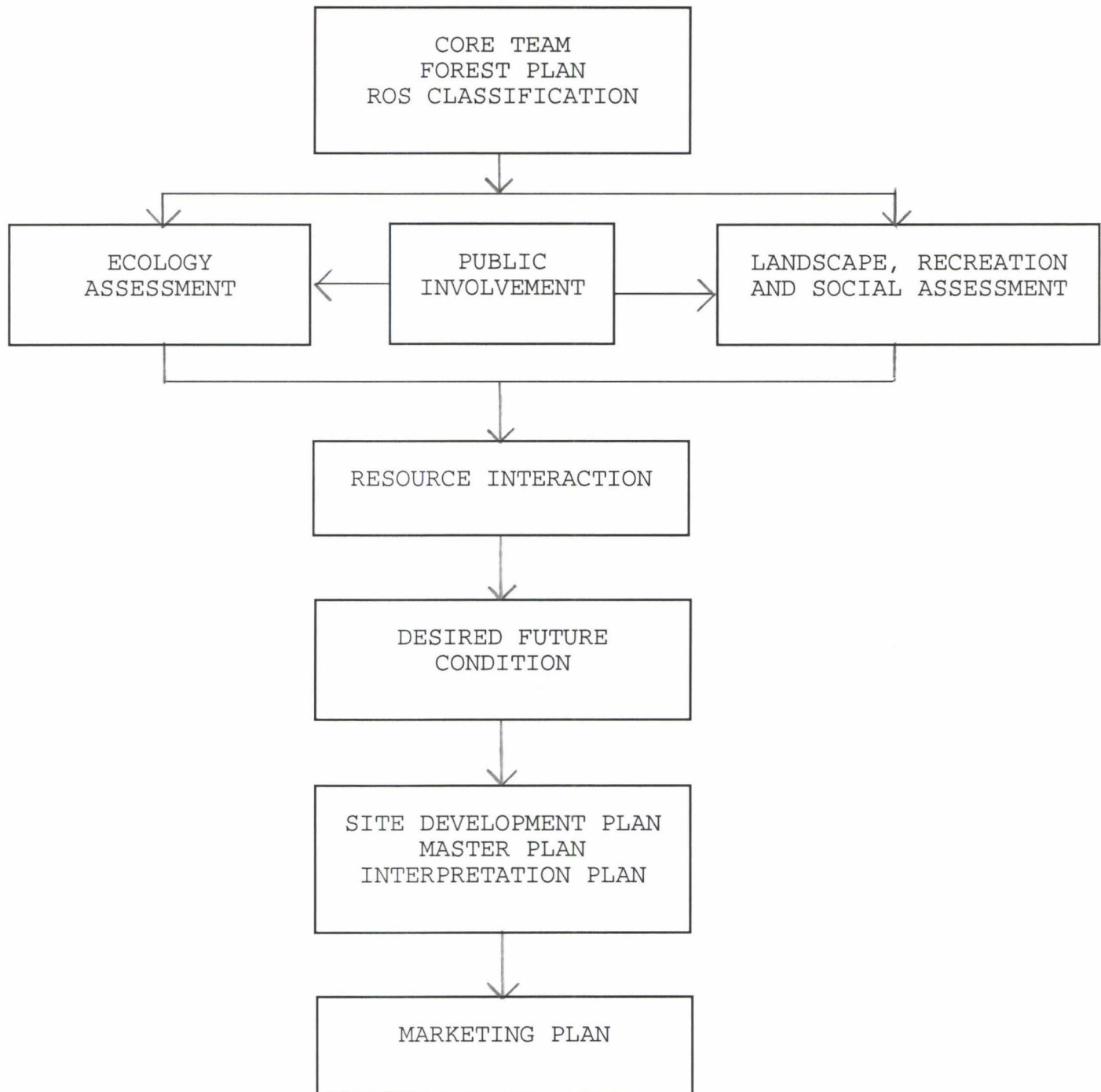
## INTEGRATED RESOURCE PROCESS

The intent of integrated resource management is to manage whole ecosystems, in contrast to timber or recreation management. A principle of this approach is to take a fresh look at the multiple resource values and the interaction of those values in deciding management direction. The process developed in this paper is designed to provide an analysis framework for an existing campground on the Ochoco National Forest, incorporating not only ecological values, but human values as well.

The process does not replace the R-6, Recreation Capital Investment Process, but rather supplements it. The most important product of the process is defining the desired condition of the site. From this definition, the site plan can be completed along with information that can lead to a marketing plan and an interpretive plan. The following is a flow diagram for the entire process. Then, each segment will be broken down and discussed in detail.



# FLOW CHART



## CORE TEAM

The Core Team will be selected by the District Ranger and Recreation Staff to lead the process from the beginning through the Desired Condition step. The team should include, but not be limited to, a District Recreation Planner, Landscape Architect, and Interpretive Specialist. They will be responsible for identifying assessment team members, scheduling meetings, establishing time lines, scoping the project, and interpreting Forest Plan direction. They will develop the overall strategy for the process and report to the District Ranger.

## ECOLOGICAL ASSESSMENT

The ecological elements within the study area will determine what disciplines will be needed for the assessments. The Core Team will make the selection. For the Sugar Creek Project area, this team will probably consist of an ecologist, botanist, hydrologist, fisheries biologist, wildlife biologist, and archaeologist. The ecologist will help define the area for the study by outlining ecosystems and the role the proposed recreation site plays in the dynamics of the area ecology. The Core Team will be responsible for coordinating public input.

Each resource specialist will be given the task of inventorying their resource within the area. Along with documenting areas that may need protection, they will point out areas that need rehabilitation or have interpretive and educational values. They will be asked to think of potential opportunities to educate the public without thinking of the way to do it. That will come later in the design phase. An example of a rehabilitation assessment might be the hydrologist noting severe bank erosion because of the dynamics of the river flow having changed when a road crossing was constructed across the stream. This will be evaluated later to see how it may be accomplished.

Each specialist will determine the range they will cover. A botanist may spend more time at the immediate campground because of the amount of plant materials where an archaeologist would spend little time there if there were no known archaeological sites. The Core Team will also advise as to what range the assessment should cover, as well as, be available to provide overall direction.

After the field work is completed, the Core Team and the ecological staff members will decide on what data will be used in the next phase. Some of the data may not be significant to incorporate in this project and may be dropped at this point.

## LANDSCAPE, RECREATION, AND SOCIAL ASSESSMENT

How the landscape is viewed is an important part of recreation analysis. Not only the landscape within the campground, but the surrounding landscape and the landscape driving to the recreational site, which may cover many miles. It is all part of the experience recreational visitors will have. This assessment will include the factors outlined by Simon Bell in his book, *Forest Landscape Design*. The first factor is sensitivity. The sensitivity of the landscape depends on resilience to change. It is important to know what affect encouraging recreational use on a landscape will have and if it will change the character of the landscape. it may have a negative effect and may irretrievably alter a landscape. We may replace an existing use with another acceptable use but in the process lose or displace the original function of the landscape. Therefore, it is important to know what changes a landscape can absorb before significantly altering the landscape. The character of the landscape is the distinct pattern of elements which occur consistently in a particular type of landscape. Recreation use may alter this pattern. The pattern of element in the surrounding landscape of Sugar Creek Campground is an open stand of mature ponderosa pine with clumps of regeneration size ponderosa pine varying in density with the aspect of the irregularly sloped landform. However, within the existing campground, the ponderosa stand is dense and stagnant with a layer of pine needles prohibiting growth of grasses or shrubs. The site has been protected from natural fires and prescribed burns, thinning, and other management options. Therefore, the vegetative character of the recreational site is out of character with its surrounding landscape. To design a recreational site to fit in with the landscape character of the area, the pattern of elements need to be identified and defined.

Recreation design needs to consider the historic and traditional use of a site, as well as its aesthetic qualities. It is important to preserve our heritage for the educational value to possibly be used in an interpretive message. It is very easy to lose this value by insensitive designing.

Another factor to use in the landscape assessment is the elements of diversity. These elements include landform, water, rocks and outcroppings, wildlife, and vegetation. This factor overlaps with portions of the assessment in the Ecological Assessment but should not be redundant because of the different perspective of the assessor. These elements may also appear in the distinct pattern of the landscape such as rock outcroppings repeating the geological character of the area. These are the physical features that provide the non-urban experience for the visitor. Their perceived quality of the outdoor is determined by these physical characteristics and should be high-lighted.



The recreational assessment would include an inventory of existing recreational uses and potential uses. The range of the inventory would be from the site itself to a distance one could drive in a casual half day trip in an automobile. This would roughly be the distance someone camping at the site would be willing to spend away. Creative thinking is important for potential recreational uses. An example might be an old railroad logging grade that would have mountain bike potential, but currently has no access to it. This should be identified and inventoried because it may be developed when the entire analysis is complete. When working on the current recreational use, the assessment should include the effect of other resources, if any, and if there is potential to improve or expand the activity.

Sugar Creek Campground is located just into the forest edge which is adjacent to the local ranching community. The small town of Paulina is approximately fifteen miles away. Rager Ranger Station, where forest service employees live, is five miles from the campground. There may be an opportunity for Sugar Creek Campground to provide a social experience for the two communities. This may be along the lines of a picnic area or a picnic shelter that can be used for day use. The potential for the site to be used along these lines needs to be assessed because of our commitment to interact with local communities. It can allow the public to actively participate with us in the decisions that affect them and may lead to the establishment of partnerships.

The Core Team will assess the gathered information and decide what will be used in the next phase.

## RESOURCE INTERACTION

This phase is the interaction of the ecological elements with the human values of the Landscape, Recreational, and Social Assessment. The objective of this phase is to see how the elements affect, enhance, facilitate, inhibit, or influence each other and to develop a Desired Future Condition for the study area. We need to visualize how ecological elements may fit into the recreation product, and we need to visualize how the recreation use fits into the landscape ecology of the area. As an example of how this works, let us take a hypothetical example from the ecological side and follow it through its interaction with a recreational element. Sugar Creek runs through the existing campground and does have some fish in it. The fisheries biologist assessment says past management practices have created a lack of shade and down woody debris in the stream, which has kept the fish population low in Sugar Creek.

The recreation assessment notes some fishing does occur, mostly by children, with limited success. The desired future condition could be to improve fishing success for children who camp at Sugar Creek. This would progress to the design phase, where fish improvement designs would be included in the design package to be funded by the Capital Investment Program, or it may lead to a partnership with Trout Unlimited. In either case, it was identified and included in the Desired Future Condition. Sugar Creek Campground lies on the edge of the transition between high desert and forest. The ecological assessment may document several places near the campground where this edge is distinct because of vegetation or landform. The recreation inventory documents no hiking trails or interpretive trails in the area, but sees a need for some in the recreation assessment. Again, the existing and the need are combined in the Desired Future Condition which is brought to the attention of the designer who incorporates an interpretive trail in the design package. The final trail design may also include other resources interpretive opportunities that were brought out in the ecological assessment. The point being, they would not have been included or the trail been planned for, if the detailed assessments were not completed.

## DESIRED FUTURE CONDITION

The Desired Future Condition Stage then pulls all the information from the resource Interaction step into a narrative describing in what direction the site should be moving. The team would develop a plan to accomplish this direction. The first objective would be to determine what would be feasible to accomplish in the Capital Investment Program. Then other strategies could be developed to accomplish other goals. Not everything may be possible immediately, but at least the direction is documented.

The Core Team will be responsible at this stage to present alternatives of the Desired Future Condition to the line officer and staff of the District. The staff will decide what alternatives will be implemented and how it will be presented for public input.

The site development plan can then be completed for the capital investment project. Along with the site plan, an interpretive plan also can be developed. It is important to complete at this time because costs can be included in the capital investment submittal. A conceptual plan may also be needed at this time to graphically display the desired conditions not included on the site development plan.



## MARKETING PLAN

A marketing plan for recreation has not been developed for the Forest. Sugar Creek Campground would be an opportunity to implement a marketing plan for the campground. The information gathered in this process and used to produce the desired future conditions and the site development plan would define the audience. The site does not have the amenities to support large numbers of people, but it does have subtle attractions that would appeal to select groups. For example, the Native Plant Society might be interested in camping there to conduct a survey if they knew about the facility and the proximity to unique plants which were documented in the botanical assessment. Other information has been gathered to identify other special interest groups. A site like this would allow for some creative marketing ideas because of its small size and low use during most of the year and would be an opportunity to serve more of the public.

## SUMMARY

It may be difficult to define exactly what it is about a place that makes it special. The special feeling is probably a combination of several elements interacting on a site that may or may not occur in a similar landscape a quarter mile away. We need to try to find out what makes these special places work and maintain that character. Mismanagement may cause an irretrievable loss. Also, the loss may be difficult to perceive. It may be a gradual reduction in use or it may be a certain segment of the population replacing another group who became dissatisfied with the change. The integrated resource approach is a process to identify the unique character of a site and develop a strategy to maintain this characteristic. It inventories the ecological functions of the area and the current recreation use and assesses their compatibility. The Desired Future Condition is developed from this information which will provide the immediate direction for recreation planning as well as long range strategy. This process will bring recreation into the New Perspectives Management Philosophy that is being implemented by other resources on our Forests.

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